

CLAIMS

1. Thin strip or foil between 6 µm and 200 µm thick, and preferably between 6 µm and 50 µm thick, of an alloy with the following composition (% by weight):

Si : 1.0 – 1.5; Fe : 1.0 – 1.5; Cu < 0.2; Mn < 0.1; other elements < 0.05 each and

< 0.15 total, remainder Al, with an ultimate tensile strength R_m in the annealed temper

5 > 110 MPa for thicknesses > 9 µm and > 100 MPa for thicknesses between 6 µm and 9 µm.

2. Thin strip or foil according to claim 1, characterised in that it has an ultimate tensile strength R_m in the annealed temper > 115 MPa for thicknesses > 9 µm.

3. Thin strip or foil according to one of claims 1 or 2, characterised in that it has
10 a yield stress $R_{0.2}$ > 70 MPa.

4. Thin strip or foil according to one of claims 1 to 3, characterised in that its ultimate elongation A is a function of the thickness, as follows:

Thickness (µm)	A (%) greater than	and preferably than
6 – 9	3	4
9 – 15	5	7
15 – 25	10	15
25 – 50	18	25

50 – 200	20	25
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5. Thin strip or foil according to one of claims 1 to 4, characterised in that the alloy has a composition such that $\text{Si}/\text{Fe} \geq 0.95$.

6. Thin strip or foil according to one of claims 1 to 5, characterised in that the silicon content of the alloy is between 1.1% and 1.3% and its iron content is between 5 1.0% and 1.2%.

7. Manufacturing process for thin strips thinner than 200 μm made of an Al-Fe-Si alloy with composition (% by weight):

10 Si : 1.0 – 1.5; Fe : 1.0 – 1.5; Cu < 0.2; Mn < 0.1; other elements < 0.05 each and < 0.15 total, remainder Al,

including the preparation of a first strip either by vertical semi-continuous casting of a plate and hot rolling, or by continuous casting possibly followed by hot rolling, cold rolling of this first strip down to the final thickness, possibly with intermediate annealing at a temperature between 250°C and 350°C, and preferably between 280°C and 340°C, 15 and final annealing at a temperature between 200°C and 370°C.

8. Process according to claim 7, characterised in that the alloy has a composition such that $\text{Si}/\text{Fe} \geq 0.95$.

9. Process according to one of claims 7 or 8, characterised in that the first strip is subjected to an homogenisation at a temperature between 450 and 500°C before cold 20 rolling.

10. Process according to one of claims 7 to 9, characterised in that the strip is prepared by continuous twin-roll casting.